

U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
OFFICE OF STANDARD SERVICES

COMMERCIAL STANDARD CS73-61
OLD GROWTH DOUGLAS FIR, SITKA SPRUCE,
AND WESTERN HEMLOCK DOORS

COMMERCIAL STANDARD CS73-61, OLD GROWTH DOUGLAS FIR, SITKA SPRUCE,
AND WESTERN HEMLOCK DOORS, WAS WITHDRAWN BY THE DEPARTMENT OF
COMMERCE IN 1972.

* * * * *

THE FOLLOWING ORGANIZATION MAY PROVIDE FURTHER ASSISTANCE AND
INFORMATION ON THE SUBJECT:

CONTACT: NATIONAL WOOD WINDOW AND DOOR ASSOCIATION (NWWDA)
1400 EAST TOUHY AVENUE, NUMBER G54
DES PLAINES, ILLINOIS 60018, USA
TELEPHONE: (708) 299-5200
FAX: (708) 299-1286

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COMMERCIAL STANDARD CS73-61
(Supersedes CS73-51 and CS91-41)

**Old Growth Douglas Fir,
Sitka Spruce, and
Western Hemlock Doors**

**A recorded
voluntary standard of the
trade published by
the U.S. Department
of Commerce**



For sale by the Superintendent of Documents
U.S. Government Printing Office, Washington 25, D.C. Price 25 cents

U.S. DEPARTMENT OF COMMERCE
BUSINESS AND DEFENSE SERVICES ADMINISTRATION
OFFICE OF TECHNICAL SERVICES
Commodity Standards Division

EFFECTIVE DATE

Having been passed through the regular procedures of the Commodity Standards Division, and approved by the acceptors hereinafter listed, this Commercial Standard is issued by the U.S. Department of Commerce, effective March 20, 1961.

LUTHER H. HODGES, *Secretary*.

COMMERCIAL STANDARDS

Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Commodity Standards Division of the Office of Technical Services, Business and Defense Services Administration, and with the National Bureau of Standards. Their purpose is to establish quality criteria, standard methods of test, rating, certification, and labeling of manufactured commodities, and to provide uniform bases for fair competition.

The adoption and use of a Commercial Standard is voluntary. However, when reference to a Commercial Standard is made in contracts, labels, invoices, or advertising literature, the provisions of the standard are enforceable through usual legal channels as a part of the sales contract.

Commercial Standards originate with the proponent industry. The sponsors may be manufacturers, distributors, or users of the specific product. One of these three elements of industry submits to the Commodity Standards Division the necessary data to be used as the basis for developing a standard of practice. The division by means of assembled conferences or letter referenda, or both, assists the sponsor group in arriving at a tentative standard of practice and thereafter refers it to the other elements of the same industry for approval or for constructive criticism that will be helpful in making any necessary adjustments. The regular procedure of the division assures continuous servicing of each Commercial Standard through review and revision whenever, in the opinion of the industry, changing conditions warrant such action.

SIMPLIFIED PRACTICE RECOMMENDATIONS

Under a similar procedure the Commodity Standards Division cooperates with industries in the establishment of Simplified Practice Recommendations. Their purpose is to eliminate avoidable waste through the establishment of standards of practice for sizes, dimensions, varieties, or other characteristics of specific products; to simplify packaging practices; and to establish simplified methods of performing specific tasks.

The initial printing of this Commercial Standard was made possible through the cooperation of an independent group of eight west coast door manufacturers.

CONTENTS

<i>Section</i>	<i>Page</i>
1. Purpose	3
2. Scope and Classification	3
Table of Standard Stock Types, Sizes, Thicknesses, and Grades	3
3. Requirements	3
4. Standard Grades	4
5. Standard Sizes	5
6. Standard Designs and Layouts:	
Douglas Fir Entrance Doors	7
House Doors	11
Jalousie Rim Doors	26
Screen Doors	27
Combination Door	28
Flat Slat Louver Doors	28
Chevron Slat Louver Doors	30
Louver Window Blinds	31
Bi-Fold Louver Doors	32
Louver Door Blinds	32
Garage Doors	34
7. Grade Marking and Certification	36
History of Project	36
Current Revision	36
Standing Committee	37
List of Acceptors	41

Old Growth Douglas-Fir, Sitka Spruce, and Western Hemlock Doors

Sixth Edition

(Effective March 20, 1961)

1. PURPOSE

1.1 The purpose of this standard is to provide a nationally recognized basis for common understanding among manufacturers, distributors, and users of Douglas-fir, Sitka spruce, and Western hemlock doors. In the development of this standard there is no desire to suppress architectural expression, and custom-made doors will still be available from the usual sources. However, the establishment of construction standards, and grade descriptions, together with the listing of generally accepted sizes and layouts, should prove mutually beneficial to all concerned by eliminating the causes of many misunderstandings, and should also produce economies in manufacture and sale which should be shared by the ultimate home owner.

2. SCOPE AND CLASSIFICATION

2.1 This standard provides minimum specifications for two grades of Douglas-fir, Sitka spruce, and Western hemlock stock doors. It covers materials, construction, grades, and tolerances for these requirements. Standard stock layouts and designs are given. The standard stock types, sizes, thicknesses, and grades of doors covered in this standard are listed in table 1.

2.2 This standard combines and "updates" both CS73-51, Old Growth Douglas-Fir, Sitka Spruce, and Western Hemlock Doors, and CS91-41, Factory Fitted Douglas-Fir Entrance Doors.

Therefore, both CS73-51 and CS91-41 are superseded by this edition. CS91-41 is withdrawn simultaneously on the effective date of this edition of CS73.

3. GENERAL REQUIREMENTS

3.1 All commercial standard Douglas-fir, Sitka spruce, and Western hemlock doors shall meet the following general requirements:

3.2 **Wood.**—Doors shall be made of properly kiln-dried Douglas fir, Sitka spruce, or Western hemlock and shall have a moisture content of from 6 to 12 percent at the time of fabrication. The minimum grade descriptions are given in section 4.

3.3 **Adhesives.**—A moisture-resistant adhesive conforming to the test requirements for Interior Type Plywood as specified in the latest edition of Commercial Standard CS45-60¹ for Douglas Fir Plywood shall be used for the bonding and assembly of all component parts of all doors, except that animal glue is permissible in the gluing of the dowel pins, and except that an exterior-type adhesive in accordance with CS45-60¹ shall be used for the bonding of vertical grain-veneered exterior doors, and for the flat plywood panels of all garage doors. When specified by the purchaser, all flat plywood panels shall be furnished with CS45-60 exterior-type adhesive.

¹ Copies of the latest edition of Commercial Standard CS45-60, Douglas Fir Plywood, are obtainable from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

TABLE 1.—Types, Sizes, Thicknesses, and Grades of Doors

Door types	Door size range ¹	Thicknesses ²	Grades ³
Entrance doors.....	2'8"×6'8" to 3'6"×7'0"	1 3/4"	Sel., Std.
House doors.....	1'6"×6'0" to 3'0"×7'0"	1 3/8", 1 3/4"	Sel., Std.
Jalousie doors.....	2'6"×6'8" to 3'0"×7'0"	1 3/4"	Sel., Std.
Screen doors.....	2'6"×6'7" to 3'0"×7'1"	1 3/8", 1 3/4"	Std.
Louver doors.....	0'8"×6'6" to 3'0"×8'0"	1 3/8", 1 3/4"	Sel., Std.
Garage doors (swing type).....	2'0"×7'0" to 4'0"×8'0"	1 3/4"	Std.
Overhead garage doors.....	8'0"×7'0" to 9'0"×8'0"	1 3/8"	Std.
Louvered window blinds.....	2'0"×3'3" to 3'8"×6'7"	1 3/8"	Std.
Louvered door blinds.....	1'0"×6'7" to 2'0"×7'1"	1 3/8", 1 3/4"	Std.
Combination storm and screen doors.....	2'6"×6'7" to 3'0"×7'1"	1 3/8"	Std.

¹ A list of the actual standard door sizes in the above ranges is given in table 2.

² A thickness tolerance of minus 1/16 inch will be permitted.

³ See sec. 4 for grade descriptions.

4.3.3 **Panels, flat-plywood.**—The standard thickness of 3-ply flat-plywood panels shall be $\frac{1}{4}$ inch after sanding, allowing $\frac{1}{2}$ inch plus or minus tolerance.

Each face shall be of one or more pieces of firm smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Inconspicuous, well-matched shims and patches shall be admitted.

4.4 **Standard grade.**—Recommended for paint or enamel finish.

4.4.1 **Stiles, rails, and mullions.**—This stock shall be of vertical grain faces allowing up to 15 percent coarse and flat grain. It shall be sound in all respects and may contain discoloration, burls, streaks, stains, and neatly repaired pitch seams. Glued-up members are permissible. Veneered members are permitted.

(a) Screen doors and louvered doors permit mixed grain.

(b) Louvered window and door blinds permit mixed grain woods.

(c) Louvered doors, and window, and door blinds in Standard Grade permit the slats of a different species than the stiles and rails.

4.4.2 **Panels, raised.**—The standard thickness of raised panels shall be not more than $\frac{1}{6}$ inch before sanding and not less than $\frac{1}{6}$ inch after sanding. They may be either slash or mixed grain, or mixed wood, and shall conform to the grade of the stiles and rails.

4.4.3 **Panels, flat-plywood.**—The standard thickness of 3-ply flat-plywood panels shall be $\frac{1}{4}$ inch after sanding, allowing $\frac{1}{2}$ inch plus or minus tolerance. Each face shall be of one or more pieces of firm, smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Streaks, discolorations, sapwood, shims, and neatly made patches shall be admitted.

5. STANDARD SIZES

5.1 The standard stock sizes of the doors covered by this Commercial Standard are given in table 2.

5.2 **Oversize requirements and overall tolerances.**

5.2.1 **Width.**—All doors and blinds except prefit shall be manufactured $\frac{1}{8}$ inch oversize in width with a tolerance of minus $\frac{1}{16}$ inch permitted.

5.2.2 **Heights.**—All doors and blinds, except screen doors, combination doors, and prefit doors, shall be manufactured $\frac{1}{8}$ inch oversize in height, with a tolerance of plus or minus $\frac{1}{16}$ inch permitted. Screen doors and combination doors shall be manufactured 1 inch greater in height plus or minus $\frac{1}{8}$ inch than stock house and entrance doors, to allow for a sloping sill.

5.2.3 **Thickness.**—The thickness tolerance permitted is given in table 1.

5.3 **Prefitting.**—When doors are ordered "prefit," a tolerance of plus or minus $\frac{1}{2}$ inch will be permitted.

6. STANDARD DESIGNS AND LAYOUTS

6.1 The standard stock designs and layouts of the doors covered by this Commercial Standard are shown herein. Doors of other designs and variations of the designs shown are permitted provided they meet or exceed all other requirements of this standard and the variations are clearly and completely stated as such. The "G" shown on the designs indicates glass openings, the "S," screen openings.

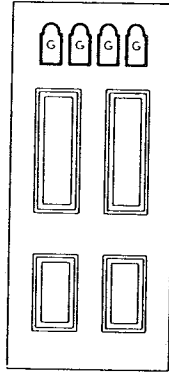
6.2 **Measurements.**—The measurements for stiles, rails, and mullions shown in the layouts are overall, including sticking before prefitting or fitting. Glass measurements shown may vary slightly.

STANDARD LAYOUTS

Douglas Fir Entrance Doors

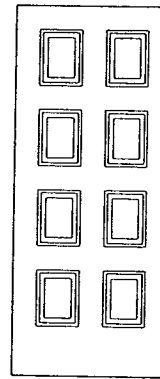
Sticking: Ovolo or B&C (manufacturer's option)
 Beads: Ovolo or bull nose (manufacturer's option)
 Thickness: 1 3/4" only
 Panels: Raised 2 sides

2005



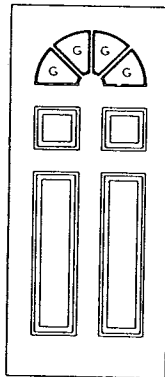
Stiles	5 3/8"
Top rail	5 3/8"
Lock rail	7 3/8"
Intermediate rail	5 3/8"
Muntin	4 1/2"
Bottom rail	9 3/8"
Bars between glass	1"

2010



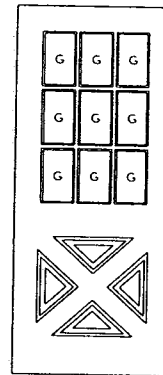
Stiles	5 3/8"
Top rail	5 3/8"
Intermediate rails	5 3/8"
Bottom rail	9 3/8"
Muntin	5 3/8"
Panels	Equal

2020



Stiles	5 3/8"
Top rail	5 3/8"
Lock rail	5 3/8"
Intermediate rails	5 3/8"
Muntins	4 1/2"
Bottom rail	9 3/8"
Hub diameter	4 1/2"
Bars between glass	1/2"

2035

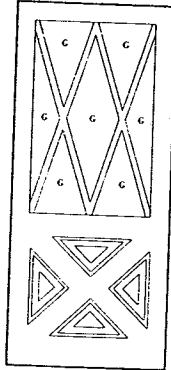


Stiles	5 3/8"
Top rail	5 3/8"
Lock rail	7 3/8"
Bottom rail	9 3/8"
Cross bucks	4 1/2"
Bars between glass	1/2"

(Also made with 1, 3, 4, and 6 lights.)

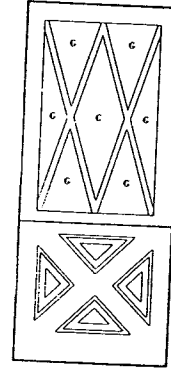
Douglas Fir Entrance Doors—Continued

2035 D-7



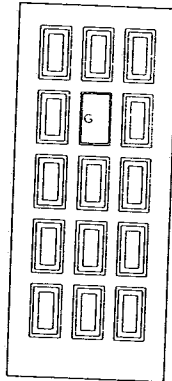
Stiles.....	5 3/8"
Top rail.....	5 3/8"
Lock rail.....	7 3/8"
Bottom rail.....	9 3/8"
Cross bucks.....	4 1/2"
Bars between glass.....	1/2"

DUTCHED
2035 D-7



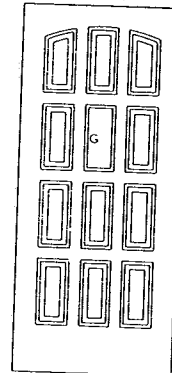
Stiles.....	5 3/8"
Top rail.....	5 3/8"
Upper lock rail.....	4 3/8"
Lower lock rail.....	4 3/8"
Bottom rail.....	9 3/8"
Cross bucks.....	4 1/2"
Bars between glass.....	1/2"

2060



Stiles.....	5 3/8"
Top rail.....	5 3/8"
Intermediate rails and muntins.....	3 3/4"
Bottom rail.....	9 3/8"
Panels and glass opening equal.	

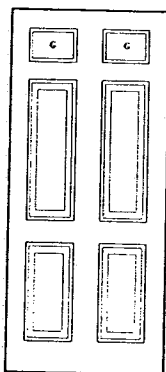
2095



Stiles.....	5 3/8"
Top rail.....	5 3/8"
Intermediate rail and muntins.....	3 3/4"
Bottom rail.....	9 3/8"

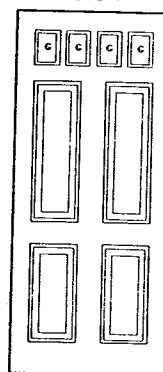
Douglas Fir Entrance Doors—Continued

2132



Stiles.....	5 $\frac{3}{8}$ "
Top rail.....	5 $\frac{3}{8}$ "
Intermediate rail.....	5 $\frac{3}{8}$ "
Muntins.....	4 $\frac{1}{2}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Bars between glass.....	4 $\frac{1}{2}$ "

2134



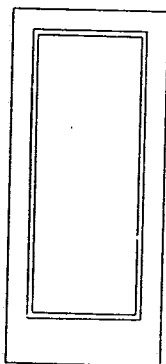
Stiles.....	5 $\frac{3}{8}$ "
Top rail.....	5 $\frac{3}{8}$ "
Intermediate rail.....	5 $\frac{3}{8}$ "
Muntins.....	4 $\frac{1}{2}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Bars between glass.....	1 $\frac{1}{2}$ "

House Doors

F 20

F 21

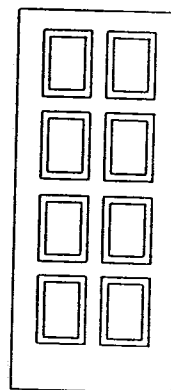
F 22



	F-20	F-21	F-22
Stiles.....	4 $\frac{1}{16}$ "	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "
Top rail.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	5 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "

3-ply plywood flat panel.

F 88

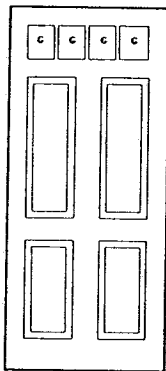


Stiles and top rail.....	4 $\frac{1}{16}$ "
Intermediate rails and muntins.....	3 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

House Doors—Continued

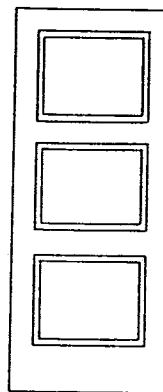
F 66-4



Stiles and top rail.....	4 $\frac{9}{16}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Intermediate rail and muntins.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height from floor to top of lock rail.....	36 $\frac{1}{2}$ "
Height from top of intermediate rail to top of door.....	12 $\frac{1}{16}$ "
Height of center panels varies with height of door.	

Doors 1'8" and narrower made 1 panel wide. 3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

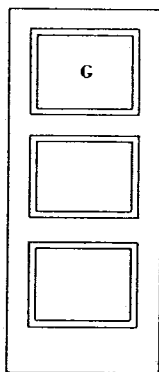
F3
F3W



	F-3	F-3-W
Stiles.....	4 $\frac{9}{16}$ "	4 $\frac{9}{16}$ "
Top rail.....	4 $\frac{9}{16}$ "	4 $\frac{9}{16}$ "
Intermediate rails.....	2 $\frac{1}{4}$ "	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	9 $\frac{3}{8}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

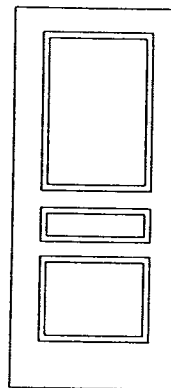
F13
F13W



	F-13	F-13-W
Stiles.....	4 $\frac{9}{16}$ "	4 $\frac{9}{16}$ "
Top rail.....	4 $\frac{9}{16}$ "	4 $\frac{9}{16}$ "
Intermediate rails.....	2 $\frac{1}{4}$ "	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	9 $\frac{3}{8}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

F 33



Stiles and top rails.....	4 $\frac{9}{16}$ "
Intermediate rails.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height from floor to top of upper cross rail.....	42 $\frac{1}{4}$ "

3-ply plywood flat panels.

Size of door

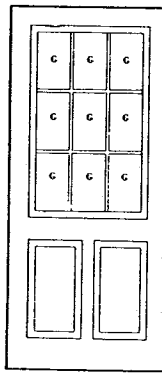
Size of glass

	F-13	F-13-W
2'6"×6'6"	21 $\frac{3}{8}$ "×20 $\frac{3}{8}$ "	21 $\frac{3}{8}$ "×19 $\frac{3}{8}$ "
2'8"×6'8"	23 $\frac{3}{8}$ "×21 $\frac{3}{8}$ "	23 $\frac{3}{8}$ "×19 $\frac{1}{16}$ "
3'0"×7'0"	27 $\frac{3}{8}$ "×22 $\frac{1}{16}$ "	27 $\frac{3}{8}$ "×21"

Beads for glass included

House Doors—Continued

F 944



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Munins.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "

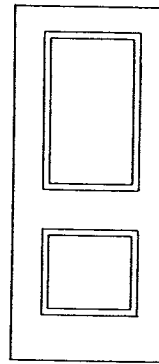
3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door
2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass
6 $\frac{3}{4}$ "×12 $\frac{1}{4}$ "
7 $\frac{3}{8}$ "×12 $\frac{1}{8}$ "
8 $\frac{3}{4}$ "×14 $\frac{3}{16}$ "

Beads for glass included.

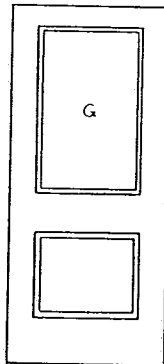
F 82



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height to top of lock rail.....	36 $\frac{1}{2}$ "

3-ply plywood flat panels.

F 182



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "

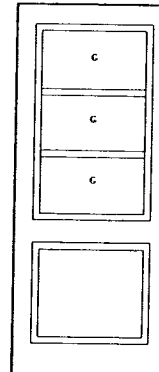
3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door
2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass
21 $\frac{1}{8}$ "×38"
23 $\frac{3}{8}$ "×40"
27 $\frac{1}{8}$ "×44"

Beads for glass included.

F 382-H



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	7 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

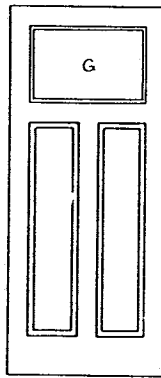
Size of door
2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass
21 $\frac{1}{8}$ "×12 $\frac{1}{16}$ "
23 $\frac{3}{8}$ "×13"
27 $\frac{1}{8}$ "×14 $\frac{1}{16}$ "

Beads for glass included

House Doors—Continued

F 162



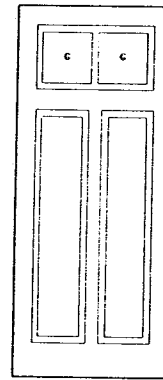
Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail and muntin.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height from top of lock rail to top of door.....	22"

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
2'6"×6'6"	21 $\frac{3}{8}$ "×18"
2'8"×6'8"	23 $\frac{3}{8}$ "×18"
3'0"×7'0"	27 $\frac{3}{8}$ "×18"

Beads for glass included.

F 262



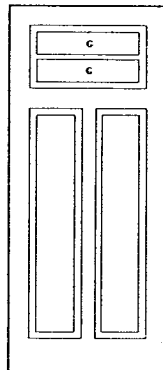
Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail and muntin.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height from top of lock rail to top of door.....	22"

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
2'6"×6'6"	10 $\frac{5}{8}$ "×18"
2'8"×6'8"	11 $\frac{3}{8}$ "×18"
3'0"×7'0"	13 $\frac{3}{8}$ "×18"

Beads for glass included.

F 262-H



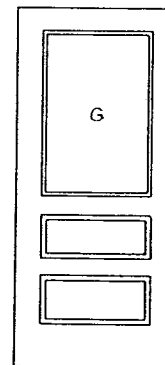
Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail and muntin.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Height from top of lock rail to top of door.....	22"

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
2'6"×6'6"	21 $\frac{3}{8}$ "×8 $\frac{3}{4}$ "
2'8"×6'8"	23 $\frac{3}{8}$ "×8 $\frac{3}{4}$ "
3'0"×7'0"	27 $\frac{3}{8}$ "×8 $\frac{3}{4}$ "

Beads for glass included.

F 114



Stiles and top rail.....	4 $\frac{1}{16}$ "
Intermediate rail.....	4 $\frac{1}{2}$ "
Lock rail.....	4 $\frac{1}{2}$ "
Bottom rail.....	9 $\frac{3}{8}$ "

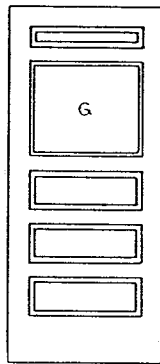
3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
2'6"×6'6"	21 $\frac{3}{8}$ "×36"
2'8"×6'8"	23 $\frac{3}{8}$ "×38"
3'0"×7'0"	27 $\frac{3}{8}$ "×42"

Beads for glass included.

House Doors—Continued

F 117



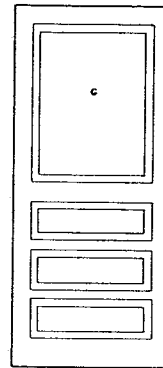
$\frac{9}{16}$ "	Stiles and top rail.....	$4\frac{1}{16}$ "
$4\frac{1}{2}$ "	Lock rail.....	$4\frac{1}{2}$ "
$4\frac{1}{2}$ "	Intermediate rails.....	$3\frac{1}{4}$ "
$9\frac{3}{8}$ "	Bottom rail.....	$9\frac{3}{8}$ "

with 3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
$2'6'' \times 6'6''$	$21\frac{1}{8}'' \times 24''$
$2'8'' \times 6'8''$	$23\frac{3}{8}'' \times 26''$
$3'0'' \times 7'0''$	$27\frac{1}{8}'' \times 30''$

Beads for glass included.

F 119



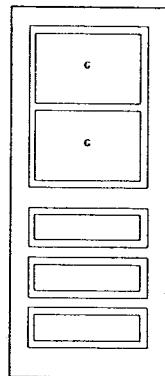
$\frac{9}{16}$ "	Stiles and top rail.....	$4\frac{1}{16}$ "
$4\frac{1}{2}$ "	Lock rail.....	$4\frac{1}{2}$ "
$4\frac{1}{2}$ "	Intermediate rails.....	$4\frac{1}{2}$ "
$9\frac{3}{8}$ "	Bottom rail.....	$9\frac{3}{8}$ "

with 3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
$2'6'' \times 6'6''$	$21\frac{1}{8}'' \times 24''$
$2'8'' \times 6'8''$	$23\frac{3}{8}'' \times 26''$
$3'0'' \times 7'0''$	$27\frac{1}{8}'' \times 30''$

Beads for glass included.

F 219-H



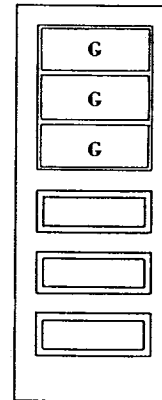
$5\frac{3}{8}$ "	Stiles and top rail.....	$4\frac{1}{16}$ "
$9\frac{3}{8}$ "	Lock and intermediate rails.....	$4\frac{1}{2}$ "
$11\frac{3}{8}$ "	Bottom rail.....	$9\frac{3}{8}$ "

with 3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
$2'6'' \times 6'6''$	$21\frac{1}{8}'' \times 11\frac{1}{8}''$
$2'8'' \times 6'8''$	$23\frac{3}{8}'' \times 12\frac{1}{8}''$
$3'0'' \times 7'0''$	$27\frac{1}{8}'' \times 14\frac{1}{8}''$

Beads for glass included.

F 316-H



$\frac{9}{16}$ "	Stiles and top rail.....	$4\frac{1}{16}$ "
$4\frac{1}{2}$ "	Lock and intermediate rails.....	$4\frac{1}{2}$ "
$9\frac{3}{8}$ "	Bottom rail.....	$9\frac{3}{8}$ "

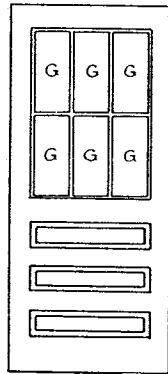
with 3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door	Size of glass
$2'6'' \times 6'6''$	$21\frac{1}{8}'' \times 9\frac{1}{16}''$
$2'8'' \times 6'8''$	$23\frac{3}{8}'' \times 10\frac{1}{2}''$
$3'0'' \times 7'0''$	$27\frac{1}{8}'' \times 11\frac{1}{16}''$

Beads for glass included.

House Doors—Continued

F 618



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	4 $\frac{1}{2}$ "
Intermediate rails.....	3 $\frac{3}{4}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Bars between glass.....	$\frac{1}{2}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door

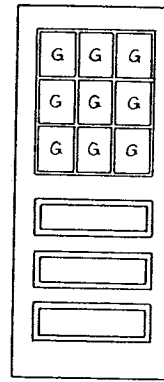
2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass

6 $\frac{3}{4}$ "×15 $\frac{3}{4}$ "
7 $\frac{3}{8}$ "×16 $\frac{3}{4}$ "
8 $\frac{3}{4}$ "×18 $\frac{3}{4}$ "

Beads for glass included.

F 918



Stiles and top rail.....	4 $\frac{1}{16}$ "
Lock rail.....	4 $\frac{1}{2}$ "
Intermediate rails.....	3 $\frac{3}{4}$ "
Bottom rail.....	9 $\frac{3}{8}$ "
Bars between glass.....	$\frac{1}{2}$ "

3-ply plywood flat panels. Can also be furnished with raised panels, if desired.

Size of door

2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass

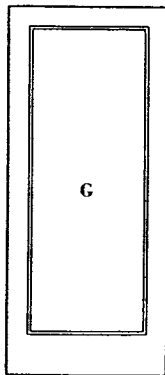
6 $\frac{7}{8}$ "×10 $\frac{3}{16}$ "
7 $\frac{1}{2}$ "×11"
8 $\frac{7}{8}$ "×12 $\frac{1}{16}$ "

Beads for glass included.

F 35

F 36

F 37



	F-35	F-36	F-37
Stiles.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	5 $\frac{3}{8}$ "
Top rail.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	6 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	18 $\frac{3}{8}$ "

Size of door

2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

Size of glass

F-35
21 $\frac{1}{8}$ "×64 $\frac{13}{16}$ "
23 $\frac{3}{8}$ "×66 $\frac{13}{16}$ "
27 $\frac{1}{8}$ "×70 $\frac{13}{16}$ "

F-36

F-37

2'6"×6'6"
2'8"×6'8"
3'0"×7'0"

20"×62"
22"×64"
26"×68"

20"×54"
22"×56"
26"×60"

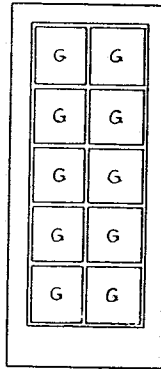
Beads for glass included.

House Doors—Continued

F 1035

F 1036

F 1037



	F-1035	F-1036	F-1037
Stiles	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	5 $\frac{3}{8}$ "
Top rail	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	6 $\frac{3}{8}$ "
Bottom rail	9 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	18 $\frac{3}{8}$ "

Bars $\frac{1}{2}$ " between glass. Sticking: Standard.

Size of door	Size of glass		
	F-1035	F-1036	F-1037
2'6"×6'6"	10 $\frac{1}{2}$ "×12 $\frac{1}{2}$ "	9 $\frac{1}{16}$ "×11 $\frac{3}{8}$ "	9 $\frac{1}{16}$ "×10 $\frac{3}{16}$ "
2'8"×6'8"	11 $\frac{1}{2}$ "×12 $\frac{7}{8}$ "	10 $\frac{1}{16}$ "×12 $\frac{3}{16}$ "	10 $\frac{1}{16}$ "×10 $\frac{3}{4}$ "
3'0"×7'0"	13 $\frac{1}{2}$ "×13 $\frac{3}{4}$ "	12 $\frac{1}{16}$ "×13 $\frac{3}{16}$ "	12 $\frac{1}{16}$ "×11 $\frac{3}{16}$ "

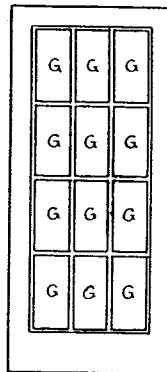
Beads for glass included.

House Doors—Continued

F 1235

F 1236

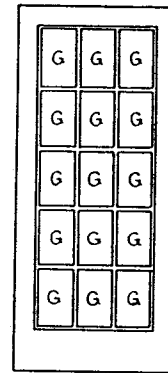
F 1237



F 1535

F 1536

F 1537



	F-1235	F-1236	F-1237
Stiles.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	5 $\frac{3}{8}$ "
Top rail.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	6 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	18 $\frac{3}{8}$ "

Bars $\frac{1}{2}$ " between glass. Sticking: Standard.

Size of door

Size of glass

	F-1235	F-1236
2'6"×6'6"	6 $\frac{3}{4}$ "×15 $\frac{1}{16}$ "	6 $\frac{1}{16}$ "×15 $\frac{1}{16}$ "
2'8"×6'8"	7 $\frac{3}{8}$ "×16 $\frac{1}{4}$ "	6 $\frac{1}{16}$ "×15 $\frac{1}{16}$ "
3'0"×7'0"	8 $\frac{3}{4}$ "×17 $\frac{1}{4}$ "	8 $\frac{1}{4}$ "×16 $\frac{1}{16}$ "

F-1237

2'6"×6'6"	6 $\frac{1}{16}$ "×13 $\frac{1}{16}$ "
2'8"×6'8"	6 $\frac{1}{16}$ "×13 $\frac{1}{16}$ "
3'0"×7'0"	8 $\frac{3}{4}$ "×14 $\frac{1}{16}$ "

Beads for glass included.

	F-1535	F-1536	F-1537
Stiles.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	5 $\frac{3}{8}$ "
Top rail.....	4 $\frac{1}{16}$ "	5 $\frac{3}{8}$ "	6 $\frac{3}{8}$ "
Bottom rail.....	9 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	18 $\frac{3}{8}$ "

Bars $\frac{1}{2}$ " between glass. Sticking: Standard.

Size of door

Size of glass

	F-1535
2'6"×6'6"	6 $\frac{3}{4}$ "×12 $\frac{1}{2}$ "
2'8"×6'8"	7 $\frac{3}{8}$ "×12 $\frac{1}{2}$ "
3'0"×7'0"	8 $\frac{3}{4}$ "×13 $\frac{3}{4}$ "

F-1536

2'6"×6'6"	6 $\frac{1}{16}$ "×11 $\frac{1}{8}$ "
2'8"×6'8"	6 $\frac{1}{16}$ "×12 $\frac{1}{16}$ "
3'0"×7'0"	8 $\frac{3}{4}$ "×13 $\frac{1}{16}$ "

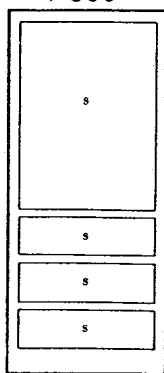
F-1537

2'6"×6'6"	6 $\frac{1}{16}$ "×10 $\frac{3}{8}$ "
2'8"×6'8"	6 $\frac{1}{16}$ "×10 $\frac{3}{8}$ "
3'0"×7'0"	8 $\frac{3}{4}$ "×11 $\frac{1}{16}$ "

Beads for glass included.

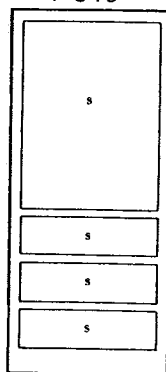
Screen Doors

F 839



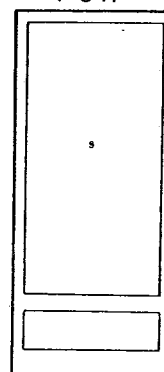
Stiles and top rail.....	2 3/8"
Bottom rail.....	5 3/8"
Cross rails.....	1 1/2"

F 840



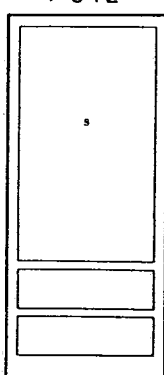
Stiles and top rail.....	3 5/8"
Bottom rail.....	7"
Cross rails.....	2 3/8"

F 841



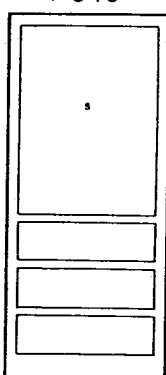
Stiles and top rail.....	3 5/8"
Bottom rail.....	7"
Cross rail.....	3 3/8"

F 842



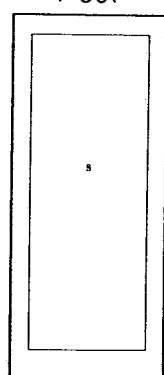
Stiles and top rail.....	3 3/8"
Bottom rail.....	7"
Lockrail.....	3 3/8"
Intermediate rail.....	2 3/8"

F 843



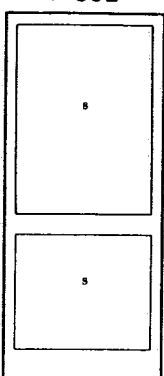
Stiles and top rail.....	3 3/8"
Bottom rail.....	7"
Lockrail.....	3 3/8"
Intermediate rails.....	2 3/8"

F 851



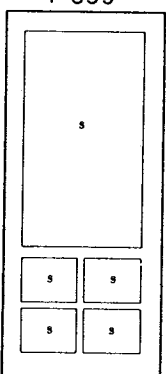
Stiles and top rail.....	3 5/8"
Bottom rail.....	9 3/8"

F 852



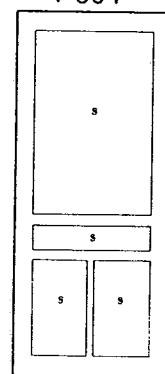
Stiles and top rail.....	3 3/8"
Bottom rail.....	7"
Cross rail.....	3 3/8"

F 855



Stiles and top rail.....	3 3/8"
Bottom rail.....	7"
Cross rails.....	2 3/8"
Mullion.....	2 3/8"

F 864



Stiles and top rail.....	2 3/8"
Bottom rail.....	5 3/8"
Cross rails.....	1 3/8"
Mullion.....	1 1/4"

Technical drawing of a door stile and rail assembly, showing cross-sections and dimensions.

STILE

6'8" HIGH
6'6" HIGH

2 1/16"
3 1/16"
4 1/16"

28°

1/4"

9 1/4"
8 3/8"

TOP RAIL

4 1/2"
4 1/2"

LOCK RAIL

5 3/4"
5 3/4"

1/8"

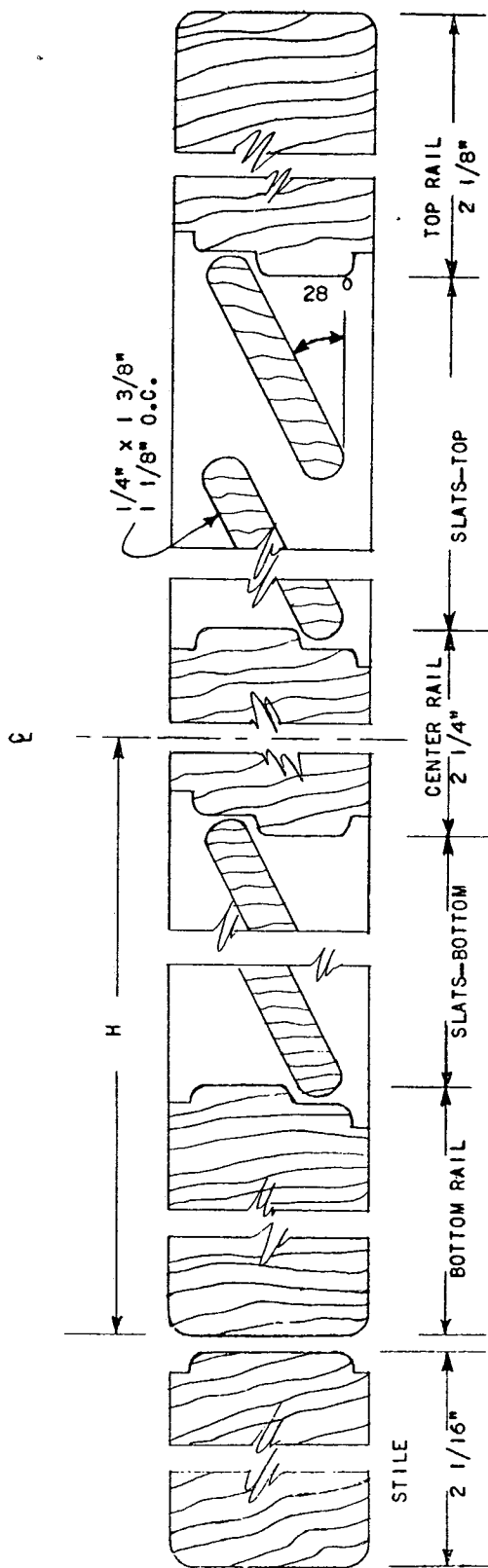
33 SLATS
31 SLATS

BOTTOM RAIL

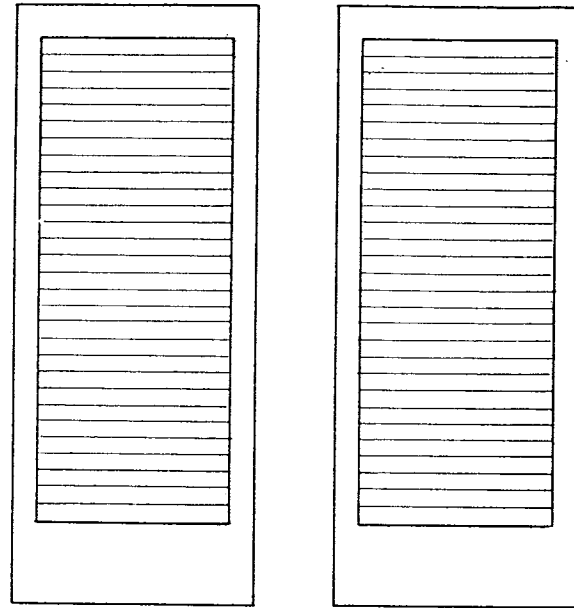
35 1/2"
35 3/4" (6'6" DOOR)

OUTSIDE FACE L.R.

Slat spacing: 1½" OC.



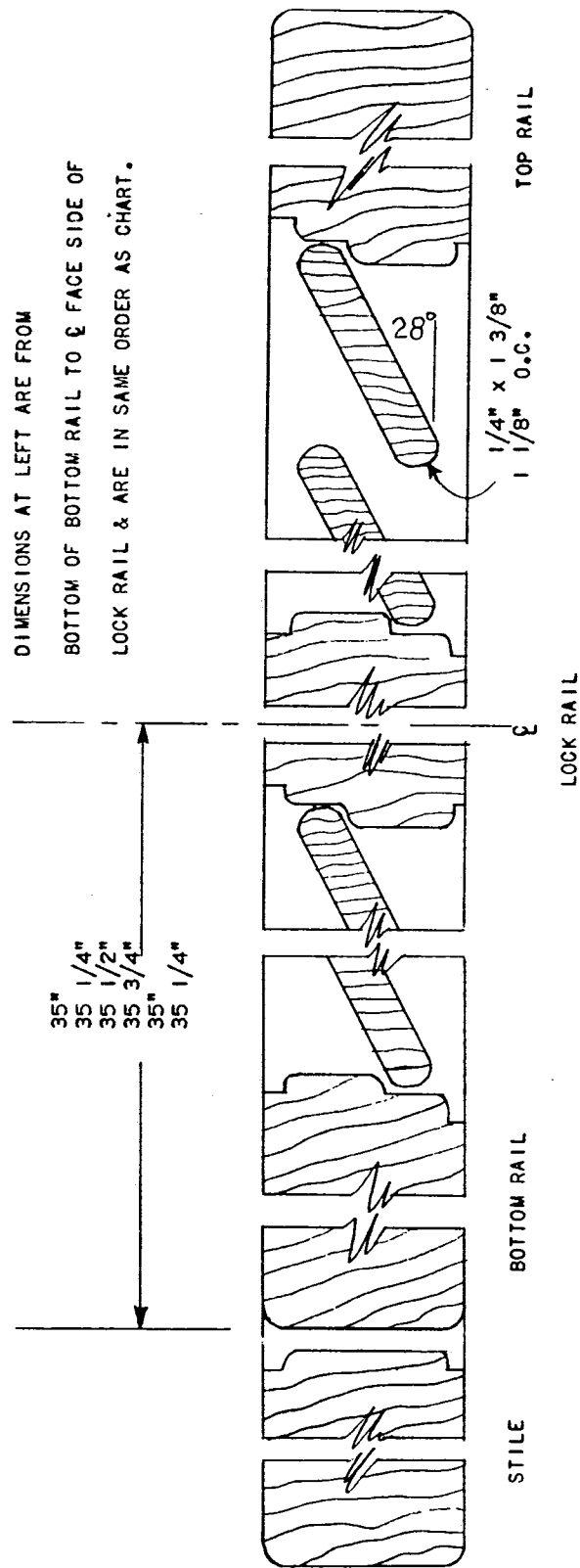
$1 1/8"$ Louver Window Blinds (Mixed Grain)



NOTE: Center rail is replaced with 2 slats to make 1-panel blind.

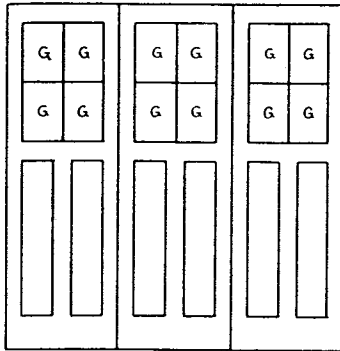
Height of blind	Slats—top section	Slats—bottom section	Bottom rail width	"H"
3'3"	14	13	43 1/2"	20"
3'7"	16	15	35 1/2"	21 3/4"
3'11"	17	17	41 1/2"	24 5/8"
4'3"	19	19	4"	26 3/4"
4'7"	21	20	43 1/2"	28 1/4"
4'11"	23	22	41 1/2"	29 7/8"
5'3"	25	24	33 1/2"	31 5/8"
5'7"	26	26	41 1/2"	34 1/4"
5'11"	28	28	33 1/2"	36 1/4"
6'3"	30	29	43 1/2"	38"

Layout for 1 1/8" Bi-Fold Louver Doors and 1 1/8" Louver Door Blinds



Swing Type Garage Doors

F493



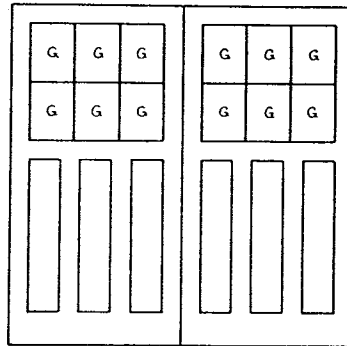
Stiles.....	4 1/16"
Top and lock rails.....	5 3/8"
Muntins.....	4 1/2"
Bottom rail.....	9 3/8"

3-ply plywood flat exterior panels.
Can also be furnished with raised panels, if desired. Sticking: standard.

Vertical bars, 3/8" between glass.
Horizontal bars, 1" between glass.

Beads for glass included.

F693



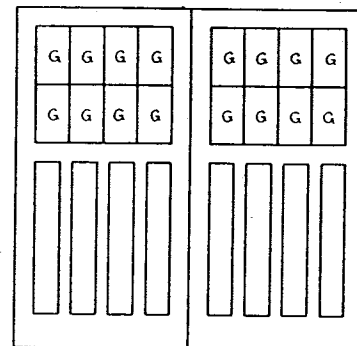
Stiles.....	5 3/8"
Top and lock rails.....	5 3/8"
Muntins.....	4 1/2"
Bottom rail.....	9 3/8"

3-ply plywood flat exterior panels.
Can also be furnished with raised panels, if desired. Sticking: Standard.

Vertical and horizontal bars, 1" between glass.

Beads for glass included.

F894



Stiles.....	5 3/8"
Top and lock rails.....	5 3/8"
Muntins.....	3 3/4"
Bottom rail.....	9 3/8"

3-ply plywood flat exterior panels.
Can also be furnished with raised panels, if desired. Sticking: Standard.

Vertical bars, 3/8" between glass. Horizontal bars, 1" between glass.

Beads for glass included.

Standard Glass Openings for Swing-type Garage Door Designs F-493, F-693, and F-894

Design No. F-493 (Sets 4 lights per door)

Size of door	Size of glass
2'0" x 7'6"	9 1/2" x 16"
2'0" x 8'0"	9 1/2" x 16"
2'6" x 7'0"	10 1/2" x 13"
2'6" x 7'6"	10 1/2" x 16"
2'6" x 8'0"	10 1/2" x 16"
2'8" x 7'0"	11 1/2" x 13"
2'8" x 7'6"	11 1/2" x 16"
2'8" x 8'0"	11 1/2" x 16"

Design No. F-693 (Pairs 6 lights per door)

Size of door	Size of glass
3'6" x 7'0"	10" x 13"
3'6" x 7'6"	10" x 16"
3'6" x 8'0"	10" x 16"
3'9" x 7'0"	11" x 13"
3'9" x 8'0"	11" x 16"
4'0" x 7'0"	12" x 13"
4'0" x 7'6"	12" x 16"
4'0" x 8'0"	12" x 16"

Design No. F-894 (Pairs 8 lights per door)

Size of door	Size of glass
3'6" x 7'0"	7 1/2" x 13"
3'6" x 7'6"	7 1/2" x 16"
3'6" x 8'0"	7 1/2" x 16"
3'9" x 7'0"	8 3/16" x 13"
3'9" x 7'6"	8 3/16" x 16"
3'9" x 8'0"	8 3/16" x 16"
4'0" x 7'0"	9" x 13"
4'0" x 7'6"	9" x 16"
4'0" x 8'0"	9" x 16"

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep this standard abreast of progress. Each organization nominated its own representative. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Commodity Standards Division, Office of Technical Services, U.S. Department of Commerce, which acts as secretary for the committee.

Manufacturers:

Frank S. Clarke, Clear Fir Products Co., Post Office Box 188, Springfield, Oreg. (Chairman)
John Penberthy, Buffelen Sales Co., Post Office Box 1595, Tacoma 1, Wash.
Donald Fowler, Simpson Logging Co., McCleary, Wash.

Distributors:

Donald A. Campbell, president, Bonner Campbell Co., Lebanon, Ky. (Representing the National Retail Lumber Dealers Association)

Fred C. Kreuscher, Hussey-Williams Co., Inc., Ozone Park, Long Island, N.Y. (Representing the National-American Wholesale Lumber Association)

Howard E. Hine, vice president, Brockway-Smith-Haight-Lovell Co., 465 Medford St., Boston, Mass.

Users:

The American Institute of Architects, 1741 New York Ave. NW., Washington 6, D.C. (Vacancy)

Milton W. Smithman, National Association of Home Builders, 1625 L St. NW., Washington 6, D.C.

The National Association of Purchasing Agents. (Vacancy)

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial Standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of Commercial Standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function, performed by the Department of Commerce in the voluntary establishment of Commercial Standards on a nationwide basis is fourfold: First, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

Teachout Sash, Door & Glass Co., Detroit, Mich.
Throop-Martin Co., Columbus, Ohio
Timberline, Inc., Kansas City, Mo.
Tyre Manufacturing Co., Inc., Alhambra, Calif.

United Wood Products Co., Inglewood, Calif.

Vancouver Door Co., Inc., Tacoma, Wash.
Van Dyke, James H., & Associates, Architect & Engineers, Los Angeles,
Calif.

Walling Sash & Door Co., Wichita, Kans.
Weinel, F. W., Lumber Co., Columbia, Ill.
Welch, Carol E., Huntington, N.Y.

West Coast Door, Inc., Tacoma, Wash.
Western Door & Sash Co., Oakland, Calif.
Weyerhaeuser Co., Tacoma, Wash.
Weyerhaeuser Co., Roddis Division, Marshfield, Wis.
Wheaton Lumber Co., Inc., Wheaton, Md.
Whitmer-Jackson Co., Inc., Buffalo, N.Y.
Williams, O. B., Co., Seattle, Wash.
Woodward Lumber Co., Seattle, Wash.

U.S. GOVERNMENT

Department of Health, Education, and Welfare, Washington, D.C.
Veterans' Administration, Washington, D.C.